

REMARKS

The Office Action of June 10, 2010 has been carefully considered. Further consideration of this application, as amended, is respectfully requested.

In the LISTING OF CLAIMS presented above, claims 1, 2, 24 and 30 have been amended.

Summary

Turning now, to the office action, claim 2 is newly rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

Claims 1-3, 5, 7, 9, 18, 20-23, 25-31, and 33-34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Contreras (U.S. patent No. 5,824,243) in view of Burris (U.S. patent No. 5,207,993; Burris '993). Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burris '993 in view of Contreras. Claims 1-3, 5, 7-16, 18, 20-23, 25-29, and 33-34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Engelhard et al. (U.S. patent No. 5,942,125) in view of Burris '993. Claim 24 was rejected under 35 U.S.C. 103(a) as being unpatentable over Engelhard in view of Burris '993 or Contreras in view of Burris '993 as applied to claim 23 above, and further in view of McMahon (U.S. Patent No. 5,681,370).

Restriction Requirement

In regard to the restriction requirement applied to claim 35, Applicants continue to disagree with the Examiner's basis for restriction, a basis that has been improperly modified while at the same time made final. Nonetheless, in the interest of advancing prosecution, Applicants have canceled method claim 35 without prejudice or disclaimer to the subject matter set forth therein. Applicants further reserve the right to pursue the subject matter of claim 35 in a divisional or other continuing application.

35 USC §112 Rejections

Applicants submit amendments that are believed to overcome the new rejection set forth under 35 USC §112, second paragraph, relative to **claim 2**. More specifically, reference to the "pressure regulator" has been replaced with "back pressure control"

for which antecedent basis is found in claim 1. The Examiner's confirmation of entry of the amendments presented herein, and the withdrawal of the rejection, is respectfully requested.

35 USC §103 Rejections Traversed

The rejection of **claims 1-3, 5, 7, 9, 18, 20-23, 25-31, and 33-34** under 35 USC §103(a) as being unpatentable over Contreras in view of Burris '993 is respectfully traversed in view of the amendments presented in claims 1 and 30.

Considering the rejection, Applicants submit that the suggested combination fails to support all the limitations recited in amended independent claims 1 or 30. Among other limitations, Applicants respectfully urge that Contreras and Burris '993, both alone or in combination, fail to teach an ozone mixing system that mixes and dissolves ozone containing gas in liquid to produce a quantity of ozonated liquid that is, at any time, greater than the amount that is demanded by the operatory unit, or a continuous circulation system that continuously re-circulates liquid containing dissolved ozone through a pressurized liquid recirculation passageway connected to and providing liquid to the operatory unit, the circulation system including a back pressure control to maintain pressure sufficient to dispense the ozonated liquid from the recirculation passageway, as set forth in the rejected independent claims.

For example, neither Contreras nor Burris '993 are believed to mix ozone and liquid to produce a quantity of ozonated liquid that is greater than the amount demanded by the operatory unit, and thereby assure that liquid is recirculated. On this basis alone, Applicants respectfully submit that the independent claims are patentably distinct over the alleged combination.

With regard to the Examiner response to Applicants prior arguments in support of patentability, Applicants acknowledge the Examiner's prior statements in earlier office actions. Nonetheless, Applicants continue to urge that the Examiner has failed to appreciate limitations relative to the recited control system (e.g., claim 1) and that neither Contreras nor Burris '993, alone or in combination, teach a control system including an ozone sensor located in a liquid recirculation passageway, and an alarm to indicate whether the device is operating properly (e.g., claim 1). As noted in the

Final Office Action of June 10, 2010 at page 5 (quoted language), at best the cited elements may ensure that water contains dissolved ozone or that the system is shut down due to lack of water. There is no teaching, however, of a control system including an alarm to indicate whether the device is operating properly (claim 1) or to monitor the liquid level in a treatment chamber (claim 30).

In light of the amendments to claims 1 and 30 and arguments above, independent claims 1 and 30 are believed to be patentably distinguishable over a combination of Contreras in view of Burris '993. Accordingly, the rejection is traversed, and Applicants respectfully submit that independent claims 1 and 30 are in condition for allowance, as are all claims dependent from claim 1.

For purposes of brevity, Applicants have not specifically addressed the limitations of each of the rejected claims dependent from amended independent claims 1 or 30, but respectfully urge them to be patentable for the reasons set forth relative to claims 1 and 30. Applicants reserve the right to submit further arguments in support of the dependent claims in a subsequent communication or on appeal.

Claim 1 was also rejected under 35 U.S.C. §103(a) as unpatentable over Burris '993 in view of Contreras. In addressing this rejection in a prior response, Applicants noted that in addition to the distinctions noted above, Applicants respectfully submit that the Examiner has taken the teachings of Burris '993 out of context. The Examiner urges that Burris '993 teaches "[a] continuous circulation system, i.e., circulation loop, draws liquid from reservoir 36 via line 16 through pumping system 20 (which is a pressure regulator) and returns purified liquid to the reservoir via line 41. Therefore, the circulation system re-circulates liquid containing dissolved ozone and is capable of continuous circulation (Col. 5, 11.59-67)." (Final Office Action, p. 16) Applicants respectfully continue to disagree.

In a prior response to Applicants arguments, the Examiner urged that he "finds this argument not persuasive for the following reasons. Even of [sic] Burris '993 is a batch unit, Burris does disclose continuous recirculation within the batch unit. The claimed

limitation of 'a continuous circulation system that continuously re-circulates the liquid is not strictly distinct from the structure disclosed by Burris." (Office Action 11/25/09; p. 6) To the contrary, while teaching circulation during a batch purifying operation, Burris '993 clearly indicates that after purifying circulation, the output route is changed to flow to an outlet from the pumping system and the ozone generator is turned off when this occurs. (e.g., col. 5, line 50 – col. 6, line 4) Such a teaching, of a batch mode, is believed contrary to the limitations found in amended claim 1. Furthermore, in setting forth the current rejection, the Examiner continues to conclude "[t]herefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the outlet of the device disclosed by Burris to an operatory unit in order to supply the operatory unit with sterile water as exemplified by the device of Contreras whom teaches that it is well known to generate sterilize ozonated water for use in operatory units." Applicants again note that while this could be true if the claimed device was intended to output sterile water. However, the claimed device disinfects operatory unit water and lines and requires outputting water containing dissolved ozone. There is a difference as one skilled in the art realizes.

It remains unclear to Applicants, and thus to one of ordinary skill in the art, how the Examiner arrives at a conclusion that a continuous circulation system is taught, let alone one that re-circulates liquid containing dissolved ozone and at the same time provides it to the operatory unit in view of Burris '993 teaching away from such an invention. Applicants respectfully submit that the alleged combination would not have taught to one of ordinary skill in the art what has been alleged, and withdrawal of the rejection is respectfully requested.

Claims 1-3, 5, 7-16, 18, 20-23, 25-29, and 33-34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Engelhard et al. (U.S. patent No. 5,942,125) in view of Burris '993. The rejection is also respectfully traversed in view of the amendments presented above in claim 1. In addition to the distinctions noted above, Applicants respectfully submit that Engelhard also fails to teach all of the recited

limitations of claim 1, as well as claims dependent therefrom. For example, Engelhard fails to teach “an ozone mixing system that mixes and dissolves the ozone containing gas in the liquid to produce a quantity of ozonated liquid that is, at any time, greater than the amount that is demanded by the operatory unit.” In view of the amendment to claim 1, and arguments presented herein, Applicants respectfully urge that claim 1 is patentably distinguishable over the teachings of Engelhard and Burris '993, alone or in combination, and withdrawal of the rejection is respectfully requested. Again, for purposes of brevity, additional arguments relative to the dependent claims are reserved for a subsequent response or on appeal.

Claim 24 was rejected under 35 U.S.C. 103(a) as being unpatentable over Engelhard in view of Burris '993 or Contreras in view of Burris '993 as applied to claim 1, and further in view of McMahon (U.S. Patent No. 5,681,370). The rejection is traversed.

Amended claim 24, sets forth a particular relationship between the desiccant and the valves (note plurality) that are closed to prevent the desiccant's exposure to moist air when the device is not operated. Applicants respectfully urge that such limitations are not taught or suggested by McMahon valves 78 and 88 (switch between dry / purge modes), nor any combination as presently alleged therewith. More specifically, while McMahon teaches valves, they do not appear arranged to protect desiccant from exposure to moist air, and McMahon teaches away from such an embodiment in describing an open top for cavity 40 in which desiccant 50 is placed (e.g., col. 2, line 65 – col. 3, line 21). Furthermore, McMahon teaches the drying of desiccant 50 (col. 5, line 66 – col. 6, line 33) and thus is not concerned with reducing its exposure to moist air while not in operation. In view of the above-noted distinctions, and the clarifying amendments to claim 24, the rejection is respectfully traversed and withdrawal of the rejection is requested.

In view of the foregoing remarks and amendments, reconsideration of this application as amended herein, and allowance thereof are earnestly solicited. In the event that additional fees are required as a result of this response, including fees for extensions

of time, such fees should be charged to USPTO Deposit Account No. 50-2737 for Basch & Nickerson LLP.

In the event the Examiner considers personal contact advantageous to the timely disposition of this case, the Examiner is hereby authorized to call Applicant's attorney, Duane C. Basch, at Telephone Number (585) 899-3970, Penfield, New York.

Respectfully submitted,

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